

REMARKS

Favorable reconsideration of this application is respectfully requested.

Substitute Figure 3 is submitted with the present response in which Figure 3 is now labeled as "Background Art", to address the objection noted in paragraph 1 of the office action.

The specification is amended by the present response to include proper headings and to correct other minor informalities, to address the objections noted in paragraph 2 of the Office Action.

Claims 10-19 are pending in this application. Claims 18 and 19 were rejected under 35 U.S.C. § 112, second paragraph. Claims 10-19 were rejected under 35 U.S.C. § 103(a) as unpatentable over U.S. patent 5,751,245 to Janky et al. (herein "Janky") in view of DE 2 923 634 C2 to Tomkewitsch.

Addressing first the rejection of claims 18 and 19 under 35 U.S.C. § 112, second paragraph, those claims are amended by the present response to address the rejection thereto.

Claims 18 and 19 were noted as unclear as to whether they were independent or dependent claims. In response to that rejection, each of claims 18 and 19 is amended by the present response to now be rewritten in independent form and to include all of the limitations from claim 10, from which they previously depended. The claim changes are not believed to change the scope of claims 18 and 19 but are only believed to clarify their status as independent claims.

Addressing now the rejection of claims 10-19 under 35 U.S.C. § 103(a) as unpatentable over Janky in view of Tomkewitsch, that rejection is traversed by the present response.

Applicants respectfully submit that the teachings in Janky and Tomkewitsch are not properly combinable in the manner suggested in the Office Action, and that even in view of such a combination each of the features positively recited in claims 10-19 is not met.

Janky discloses a mobile route monitoring system in addition to a time table monitoring and communication system. However, applicants note that the mobile route monitoring system in Janky is time-dependent, that is a time recording is mandatory for the system therein.

As a result, in Janky an actual position S_i (determined by GPS) is compared with a stored target position S_i' at predetermined time points T_i , see for example Figure 4 in Janky. If a difference exists between S_i and S_i' , the existence of such a difference is communicated to a central office.¹ Moreover, in Janky stored pairs of variants of time value and position value are stored in a memory.² However, Janky does not disclose or suggest storing route data "in a form of coordinates and assigned route vectors" as in the claimed invention. Janky does disclose certain embodiments in which a route segment L_i' is stored additionally to the above pair of time value and position value.³ However, in such teachings in Janky a time value is always required to be saved together with the above position data.

Utilizing a route monitoring system dependent on time such as in Janky allows an emergency call to be carried out in the case of a traffic jam or a breakdown.

Such a structure and operation in Janky, however, are contrary to the claimed invention that provides a route monitoring system with which a number of contacts to a central location can be kept to a minimum to reduce cost.

In such ways, Janky does not even address the same types of problems and drawbacks that the claimed invention addresses and solves.

¹ Janky at col. 5, lines 36-55.

² Janky at col. 8, line 60 et seq.

³ See, for example, Janky at col. 13, line 40 et. seq. and col. 15, line 52 et. seq.

Moreover, as recognized in the Office Action, “Janky does not teach assigning route vectors to the route, and assigning the tolerance data to a vertical direction of a next route vector, and allowing selection of the length of the vector and the tolerance”.⁴ To overcome such recognized deficiencies in Janky, the outstanding office action cites the teachings in Tomkewitsch.

In that respect, applicants note one object of the claimed invention is provided a route monitoring system in which a number of contacts provided to a central location can be kept to a minimum to reduce cost, which is achieved by setting the length of the route vectors and the width of the tolerance according to the route, as noted in the claims. Janky and Tomkewitsch fail to teach or suggest such subject matter.

Moreover, applicants note the device of Tomkewitsch is directed to a completely different device than that of both Janky and the claimed invention, and does not overcome the deficiencies in Janky.

Tomkewitsch is directed to a traffic supervision system, and is not even directed to a route monitoring system. As such, the teachings in Tomkewitsch are not even relevant to the teachings in Janky. Moreover, in view of the differences in Tomkewitsch and Janky, Tomkewitsch does not even teach or suggest the use of on-board units that have a transmitter to connect to a central station in case of a deviation from a route. Simply, Tomkewitsch is not even directed to a similar device as that in Janky or the claimed invention.

Moreover, the system of Tomkewitsch relies on beacons at which an actual position and direction of a vehicle is to be updated and corrected when passing the beacon. In Tomkewitsch the vectors to a next possible beacon are not even saved, and are not part of a predetermined route. As a result, Tomkewitsch provides no teaching or suggestion of storing

⁴ Office Action of October 6, 2003, the sentence bridging pages 3 and 4.

data of a predetermined route, but instead incorporates a need to reach a beacon to get to next vectors of possible routes and to correct a position value.

Moreover, Tomkewitsch does not even address the claimed feature for storing predetermined tolerance data, i.e. such data being stored before a trip, as in the claimed invention. The tolerance data in Tomkewitsch is not predetermined but must be calculated in an on-board unit depending on a maximum error of a dead reckoning.⁵

Finally, in Tomkewitsch the tolerance data does not exist as values of authorized deviation in a direction of a next route vector, as in the claims, but instead as tapered areas that are calculated based on route vectors and a maximum error.⁶

In such ways, the noted teachings in Tomkewitsch have no relevance whatsoever to the teachings in Janky or to the claimed invention, and do not even teach or suggest each of the features recognized as not taught by Janky.

In such ways, each of the claims is believed to clearly distinguish over the combination of teachings of Janky in view of Tomkewitsch.

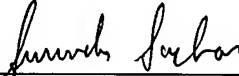
⁵ Tomkewitsch at col. 8, lines 26-29, and the areas in Figure 3.

⁶ Tomkewitsch at col. 8, line 29 et. seq., and the areas in Figure 3.

As no other issues are pending in this application, it is respectfully submitted that the present application is in condition for allowance, and it is hereby respectfully requested that this case be passed to issue.

Respectfully submitted,

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